

Amendments to the Claims

Claim 1 (currently amended): An isolated nucleic acid ~~that encodes a protein involved in neurological and developmental disorders, as well as diseases involving cell-cell adhesion process~~, comprising:

- (a) a nucleotide sequence selected from the group consisting of:
- (i) SEQ ID NO: 1;
 - (ii) the complete complement of the sequences set forth in (i);
 - (iii) the nucleotide sequence of SEQ ID NO: 2; or SEQ ID NO: 1113;
 - (iv) a degenerate variant of the sequences set forth in (iii); ~~and~~
 - (v) a nucleotide sequence at least 90% identical in sequence to SEQ ID NO: 2 or SEQ ID NO: 1113; and
- 63 (v)(vi) the complete complement of the sequences set forth in (iii) ~~and (iv) - (v)~~;

or

- (b) a nucleotide sequence selected from the group consisting of:
- (i) a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO: 3; or SEQ ID NO: 1114;
 - (ii) a nucleotide sequence that encodes a polypeptide ~~having the~~ at least 90% identical in sequence to of SEQ ID NO: 3; or SEQ ID NO: 1114, ~~with conservative amino acid substitutions~~; and
 - (iii) a nucleotide sequence that is the complete complement of the nucleotide sequences set forth in of any one of (i) and - (ii),

wherein said isolated nucleic acid encodes a protein involved in neurological and developmental disorders, as well as diseases involving cell-cell adhesion processes and wherein said isolated nucleic acid comprising a nucleotide sequence selected from group (b) is no more than about 100 kb in length.

Claim 2 (cancelled)

Claim 3 (original): The isolated nucleic acid of claim 1, wherein said nucleic acid, or the complement of said nucleic acid, is expressed in adrenal, adult liver, bone marrow, brain, fetal liver, heart, kidney, lung, placenta, skeletal muscle, colon and prostate, as well as a cell line, hela.

a³
Claim 4 (currently amended): A nucleic acid probe, comprising:

(a) the nucleic acid of claim 1; or

~~(b) at least 17 contiguous nucleotides of SEQ ID Nos: 4, 6 or 1115,~~

~~wherein said probe according to (b) is no longer than about 100 kb in length.~~

Claim 5 (original): The probe of claim 4, wherein said probe is detectably labeled.

Claim 6 (original): The probe of claim 4, attached to a substrate.

Claim 7 (original): A microarray, wherein at least one probe of said array is a probe according to claim 4.

Claim 8 (original): The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule is operably linked to one or more expression control elements.

Claim 9 (original): A replicable vector comprising a nucleic acid molecule of claim 1.

Claim 10 (original): A replicable vector comprising an isolated nucleic acid molecule of claim 8.

Claim 11 (currently amended): A host cell transformed to contain the nucleic acid molecule of any one of claims 1 or 8 - 10, or the progeny thereof said host cell.

a³
Claim 12 (original): A method for producing a polypeptide, the method comprising:
culturing the host cell of claim 11 under conditions in which the protein encoded by said nucleic acid molecule is expressed.

Claims 13-31 (withdrawn)

Claim 32 (original): A diagnostic composition comprising the nucleic acid of claim 1, said nucleic acid being detectably labeled.

Claim 33 (original): The diagnostic composition of claim 32, wherein said composition is further suitable for *in vivo* administration.

Claims 34-38 (withdrawn)

Claim 39 (original): A pharmaceutical composition comprising the nucleic acid of claim 1 and a pharmaceutically acceptable excipient.

Claims 40-47 (withdrawn)

Claim 48 (new): An isolated nucleic acid, comprising:

- a³
- (a) a nucleotide sequence selected from the group consisting of:
 - (i) SEQ ID NO: 1;
 - (ii) the complete complement of the sequences set forth in (i);
 - (iii) the nucleotide sequence of SEQ ID NO: 2 or SEQ ID NO: 1113;
 - (iv) a degenerate variant of the sequences set forth in (iii); and
 - (v) a nucleotide sequence at least 95% identical in sequence to SEQ ID NO: 2 or SEQ ID NO: 1113; and
 - (v) the complete complement of the sequences set forth in any one of (iii) - (v);

or

- (b) a nucleotide sequence selected from the group consisting of:
 - (i) a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO: 3, or SEQ ID NO: 1114;

- (ii) a nucleotide sequence that encodes a polypeptide at least 95% identical in sequence to SEQ ID NO: 3 or SEQ ID NO: 1114; and
- (iii) a nucleotide sequence that is the complete complement of the nucleotide sequence of any one of (i) - (ii),

wherein said isolated nucleic acid encodes a protein involved in neurological and developmental disorders, as well as diseases involving cell-cell adhesion processes and wherein said isolated nucleic acid comprising a nucleotide sequence selected from group (b) is no more than about 100 kb in length.

Claim 49 (new): An isolated nucleic acid, comprising:

- a³
- (a) a nucleotide sequence selected from the group consisting of:
 - (i) SEQ ID NO: 1;
 - (ii) the complete complement of the sequences set forth in (i);
 - (iii) the nucleotide sequence of SEQ ID NO: 2 or SEQ ID NO: 1113;
 - (vi) a degenerate variant of the sequences set forth in (iii); and
 - (v) a nucleotide sequence at least 99% identical in sequence to SEQ ID NO: 2 or SEQ ID NO: 1113; and
 - (vii) the complete complement of the sequences set forth in any one of (iii) - (v);

or

- (b) a nucleotide sequence selected from the group consisting of:

- (i) a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO: 3, or SEQ ID NO: 1114;
- (ii) a nucleotide sequence that encodes a polypeptide at least 99% identical in sequence to SEQ ID NO: 3 or SEQ ID NO: 1114; and
- (iii) a nucleotide sequence that is the complete complement of the nucleotide sequence of any one of (i) - (ii),

wherein said isolated nucleic acid encodes a protein involved in neurological and developmental disorders, as well as diseases involving cell-cell adhesion processes and wherein said isolated nucleic acid comprising a nucleotide sequence selected from group (b) is no more than about 100 kb in length.

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